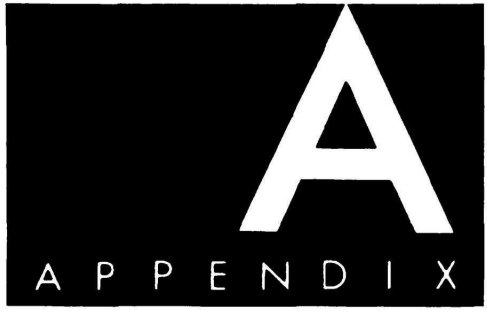
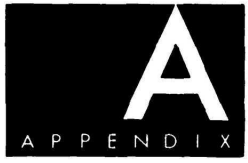


Glossary



Glossary

Active spreadsheet: The area of the spreadsheet grid that contains data.

Argument: The variables used with a formula function. For example, in SUM(B2:B15) the argument is the set of values contained in the range B2:B15.

Arithmetic operator: A symbol that represents one of the calculations possible with SuperCalc: +, -, *, /, %, ^ or **.

Arrow keys: The four arrow keys. One of two sets of cursor movement keys for SuperCalc3. See the Cursor diamond keys.

Aspect ratio: The relationship between the height and width of a plotting device. This number determines the proportions of graphs and text.

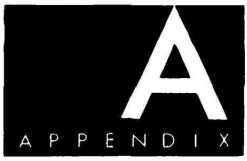
Axis: A line drawn on a graph to define points of reference in Line, X-Y and Bar graphs.

Backup: The process of duplicating a file to protect against possible loss. It is a good practice to backup all work onto a separate disk. Always backup a program distribution disk before using the program. Store the original in a safe place and use the copy.

Blank cell: A cell without contents, but formatted at the entry level. A blank cell requires a small amount of computer memory for the format data. See Empty cell.

Block: A rectangle of cells specified by naming the upper left and lower right corner cells, separated by a colon or period.

Byte: Storage space for one character.



APPENDIX A

Cell: The unit on the spreadsheet into which you can enter a text string, repeating text or a formula. A cell is identified by its coordinates on the spreadsheet.

Cell address: The coordinates that identify a cell. For example: A1 and AS187.

Cell contents: The data that a cell contains. A cell may contain a text string, repeating text or a formula.

Cell display format: The format that determines how the cell value displays on screen and prints on reports.

Cell location: The cell coordinates.

Cell range: A rectangular group of cells consisting of a partial row, partial column or a block. A range is specified by naming the upper-left most and lower-right most cells, separated by a colon (:) or period (.).

Cell reference: The instruction to substitute the cell value of another cell. A cell reference is made by naming the cell coordinate.

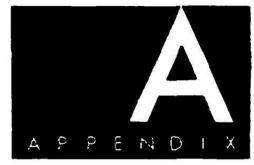
Cell value: The value of the cell contents. A text string and a repeating text cell have a numerical value of zero. A formula cell has a numerical value obtained by evaluating the formula in the cell. A formula may have a numerical value, date value or textual value.

Circular cell: A cell containing a formula that is part of a circular reference.

Circular reference: A series of cell(s) containing references that ultimately form a closed loop.

Column: All cells in a vertical line, including empty cells. Columns are designated with the letters A-BK for a total of 63 columns. See Row.

APPENDIX A



Command: An instruction to SuperCalc3. Commands begin with **!**, **;**, **=**, **&**, or */*.

Command mode: The mode in which you enter commands to SuperCalc3.

Consolidate: The process of combining data from different spreadsheets or from different parts of the same spreadsheet.

Contents: See Cell contents.

Coordinate: The intersection of a column and a row on the spreadsheet, identified by the column letter and row number.

Copy: A command to copy the contents of one cell range into another. See Replicate.

Criterion range or block: A block of cells on a spreadsheet in which search criteria are entered for finding or extracting data from a database. The first (top) row of cells is reserved for field names.

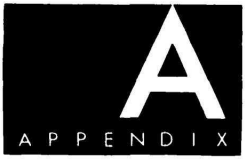
Current cell: The cell in which the cursor is currently positioned and which is eligible for data entry.

Current cell status line: The first of three lines in the status area. Displays the status of the current cell.

Current column: The column containing the current cell.

Current direction: The direction in which the spreadsheet cursor is set to move. The direction is set by the last movement of the cursor movement keys and can be turned on/off with *Global,Next*.

Current row: The row containing the current cell.



APPENDIX A

Cursor diamond keys: The set of cursor movement keys ([**Ctrl S**], [**Ctrl E**],[**Ctrl X**],[**Ctrl D**]). The cursor diamond keys are equivalent to the arrow keys.

Data: A string of meaningful text, numeric, or symbolic characters.

Database: In SuperCalc3, a list of data contained on a spreadsheet and defined by a *Data,Input* range. The database can be searched, and data can be extracted to another part of the spreadsheet, based on the search criteria you enter.

Data directory path: See Directory path.

Data entry/command line: The third of three lines in the status area below the spreadsheet.

Data entry mode: The mode in which you enter data directly into the data entry line.

Data management: The process of creating a database, then finding or extracting specified data. The data management functions are accessed through the *Data* command. Also called Information Management.

Date value: The value entered into a cell with one of the date entry functions. A date value displays in the form MM/DD/YY.

Default: The setting that the SuperCalc program assumes unless you change it. The default settings are in effect when SuperCalc3 is first started. For example, the default display format settings are: General, Text Left, Right numeric, column width 9.

Destination range: The range of cells in which to put data.

Directory: The list of filenames kept on a disk by the operating system. Under ProDos, you can have multiple directories on a disk. Also called a Catalog.



Directory options: Accessed through the slash commands: *Load*, *Save*, *eXecute*, *Quit*, and *Delete*. Displays lists of filenames, graph names, and graph types. Also allows change of current data and graph directory paths.

Directory path: Disk volume name and optional sub-directory names entered with a filename for the purpose of locating the file. Current Data directory path and Graph directory path are displayed at the SuperCalc3 Directory Options Menu. See Directory options and Prefix.

Disk: A magnetically-coated storage medium for data and programs. Disks are either flexible (also called diskettes or floppies) or rigid (also called fixed or hard).

Diskette: See Disk.

Display format: The cell display format that controls how the value is displayed on screen and how it will be printed on paper.

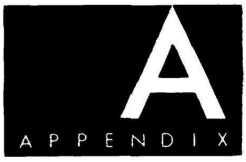
Display window: That portion of the spreadsheet that is currently displayed on the screen. The window may be split to display two portions of the spreadsheet at the same time.

Drive (or disk drive): The device used to write data to and read data from a disk.

Edit: To modify or alter the contents of a cell or command.

Edit cursor: The cursor on the data entry/command line. Indicates where the next character will be entered.

Empty cell: A cell that has nothing in it, either contents or formatting at the entry level. All cells are empty when SuperCalc3 is first started. No computer memory is used for empty cells. See Blank cell.



APPENDIX A

Entry: Format settings of highest priority that cannot be overridden by lower level global, row or column formatting.

Error value: A value obtained when a formula cannot be calculated. An error value may be entered directly into a cell as ERROR and be used to construct logical functions.

Escape-to-point function: The [**Esc**] key places the current cell address on the entry line. At the same time the [**Esc**] key activates the cursor movement keys for moving the spreadsheet cursor. The current cell address on the data entry line changes as the spreadsheet cursor is moved. The specified range is highlighted on the screen.

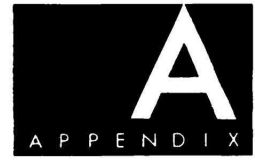
Exponential display: Displays a numerical value in scientific notation. Numbers are displayed with one digit to the left of the decimal point raised to a power of 10. The letter *e* separates the significant figures from the power of 10. Example: 3.15e3 is the exponential display format for 3,150.

Field: Each column in a database, or each cell in a database record. For example, a column defined by the field name CITY is the CITY field in the database. Each row in that database (called a record) contains a CITY field cell.

Field name: A text cell that identifies a column or field for the *Data* command. The first (top) row in an Input block, Output block, and Criterion block is reserved for field names. A field name cell can remain blank for global searches.

File (or disk file): Data or program stored on a disk under a unique filename.

File ID (or filespec): The parts to a typical file identification: Prefix, filename, and filename suffix. Examples include /DATA/BUDGET.CAL or /DATA2/TOM/TEST.XQT.



Filename & suffix: The one to fifteen character name defining a disk file. The characters can be capital or lower-case letters, numbers, or periods. Valid filenames include: SC3 or BUDGET.CAL or MEMO.8 or MY.FEB.EARNINGS. First character in a ProDOS filename must be a letter. If you enter a period in a filename, you create a suffix. SuperCalc3 uses your suffix and does not append a .CAL, . PRN, OR, . XQT suffix. For example, when you enter a filename at the *Save* command, BUDGET is saved automatically as BUDGET.CAL; BUDGET.OCT is saved as BUDGET.OCT; BUDGET.CAL is saved as BUDGET.CAL. See File ID.

Fonts: The alternate typefaces (character sets) used to print/plot text and graphs. Fonts can be used to alter the presentation of graph-headings, graph-subheadings, X- and Y-axis headings and all other graph text.

Format a disk: An operating system (such as ProDOS) procedure used to prepare a blank disk to receive data. Used disks can be re-formatted, but all programs or data on the disk are erased in the process.

Format precedence: The order of precedence that controls how a cell is formatted. The order of precedence from lowest to highest is: global, column, row, entry.

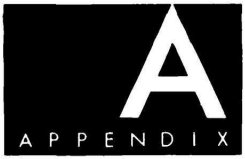
Format: See Display format.

Formula: A mathematical statement that calculates a number. It can consist of numbers, arithmetic operators, coordinates, or functions.

Formula function: See Function.

Forward reference: A cell that consists of a formula containing a higher cell address.

Function: A built-in mathematical calculation. SuperCalc has five types of functions: arithmetic, financial, logical, calendar, and special functions.



APPENDIX A

Global status/prompt line: The second of three screen lines in the Status Area. This line displays the global status in spreadsheet and data entry mode. It displays prompts in command mode.

Graph description: A device- and data-independent definition of all selected attributes and options of a graph. A .CAL file may contain as many as nine (9) graph descriptions. A graph description includes graph-type, variable definitions, headings, (actually text in spreadsheet cells), label and legend scaling and other formatting options. Each graph description has an implicit comment that serves as a graph name (source: main heading), used to identify the graph description for the graph description directory.

Graph directory path: See Directory path.

Grid: A set of horizontal and/or vertical lines drawn through the whole of a graph at all of the points of coordinate intersection. A grid may be used with X-Y, Bar, and Line graphs only.

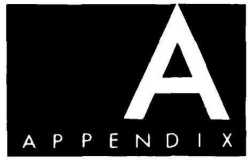
Hard disk: See Disk.

Headings (titles): There are four types of headings in a graph: main, sub, X, and Y.

Help: Press the SuperCalc3 AnswerKey (**?**) or [**Apple 1**] at any time for on-screen information about your current options. Press any key to return to the spreadsheet.

Input range or block: A block of cells on a spreadsheet in which data for a database is entered. The first (top) row of cells is reserved for field names. Each of the other rows is a record.

Interpretive prompting: You only need to type enough of a command to uniquely identify it and SuperCalc immediately fills in the rest of the command.



Kilobyte: Storage space for 1024 characters. Abbreviation: K as in 128K.

Load: To read a program or data into the computer memory.

Model: The application of arranging a problem onto a spreadsheet to manipulate data. See Template.

Nesting: One function used as an argument to another function.

Not available value: A value obtained when data are not available. This value may be entered directly into a cell and be used to construct logical functions. Enter the not available value as NA. It displays as N/A.

Numerical constant: A formula entry consisting of a decimal number only.

Numerical value: A value that can be expressed as a decimal number. A numerical value can be a numeric constant or the result of evaluating a formula.

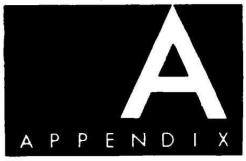
On-line: An active disk drive. A disk volume in a ready state (disk inserted properly, drive door closed, cables connected, power on).

Operating system: A collection of commands and programs used to start ("boot") the system and display the system prompt; manage disk files; perform additional internal and external functions, including resource management.

Output range or block: A block of cells on a spreadsheet used as a destination for data extracted from a database. The first (top) row of cells is reserved for field names.

Partial column: A series of cells within a column.

Partial row: A series of cells within a row.



APPENDIX A

Path: The syntax used in ProDos to specify the disk volume and series of sub-directories to the desired file. Paths can be used in SuperCalc3. See Prefix. See your ProDos manual for more information.

Pie explosions: The separation of one or more sections of a Pie graph for purposes of visual emphasis.

Pixel: A picture element on a monitor screen seen as a very small dot or dots (pixels). Monitor resolution is measured in pixels.

Point-Label: Alpha or numeric annotations placed next to segments (Pie radial "legends"), above data bars (Bar), or on points (Line) within a graph.

Prefix: The 1 to 64 character path of the current directory, including the disk volume name and one or more sub-directory names. For example, /VOLUME/SUBDIR1/SUBDIR2/. SuperCalc3 uses this path to look for user files. SuperCalc3 maintains three prefixes: the program prefix (where SuperCalc3 itself resides), the data prefix (where the user .CAL files reside), and the graphics prefix (where the graphics program overlays reside). ProDos maintains a current prefix. See Directory path.

Range: See Cell range.

Record: Each row of data in a database. Each cell, or field, in a record contains a separate data item, such as Last Name, First Name, or Telephone Number.

Relational operator: A symbol used in formulas that represents a relationship between two values, such as = (equals), or > (greater than), or < (less than).

Replicate: To copy an entry or range of entries to another part of the spreadsheet. See Copy.



Row: All cells in a horizontal line, including empty cells. Rows are designated with the numbers 1-254. See Column.

Scale-Label: Provides annotations for Y-axis (Line or Bar) or X-and Y- axes (X-Y). Y-labels are automatically inserted by SuperCalc. X- labels (called Time-labels) can be supplied by the user.

Scroll: The apparent movement of the display window over the spreadsheet to display a different part of the spreadsheet. See Display window.

Search criteria: Entries in a Criterion block pinpointing the data to be found in a database, or data to be extracted from a database. Examples of search criteria: Thompson (exact text match); 155 (exact numeric match); < 3000 (formula); J* (text match with wildcard).

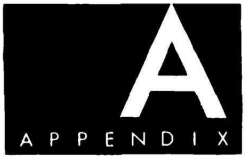
Search operations: *Find* (highlights database records, one at a time, if data satisfies your criteria); *Extract* (copies data to *Output* block if it satisfies your criteria); *Select* (lets you extract or reject specified data from each record that satisfies your criteria).

Source range: The range of cells from which to get data.

Spreadsheet: A grid containing cells arranged in columns and rows on which data are entered. Also used to refer to individual spreadsheet files created on this grid. See Active spreadsheet.

Spreadsheet cursor: The current cell contains the spreadsheet cursor. Data entered into the Data Entry line will go into this cell when **[RETURN]** is pressed.

Status area: The bottom three lines of the screen containing the current cell status, global status/prompt, and data entry/command lines.



APPENDIX A

Sub-directory: A sub-division within a disk volume. For example, a hard disk named /PROFILE might be divided into sub-directories named / SUPERCALC, /DATA, /WRITER, and /TEXT. In SuperCalc3, a sub-directory can be changed at the Directory Options Menu. See your operating system manual for more information about sub-directories.

Suffix: See Filename & suffix.

Target range: The range of cells in which to put data. See Destination range.

Template: A structured spreadsheet containing formulas and formatting instructions used for entering and/or displaying data. See Model.

Textual value: The value obtained by enclosing text in double quotes and parentheses. A text value displays as text.

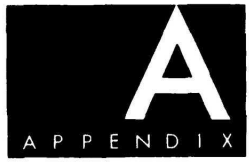
Ticks: Short lines drawn to the outside of the X- and Y- axes at the points of unit specification. Ticks may be used with Line, X-Y and Bar graphs only.

Time-Label: A series of text or numeric annotations to label X-axis (Line or Bar), segments (Pie), points (X-Y) or to annotate Pie Legends. A Time-label may be a range.

Value: See Cell Value.

Variable: A variable defines a range of data to be expressed graphically. Ten individual data ranges, or variables, (named A through J) may be specified for any graph description. Each has an optional Point- label range. Multiple variables are permissible for all graph types except Pie.

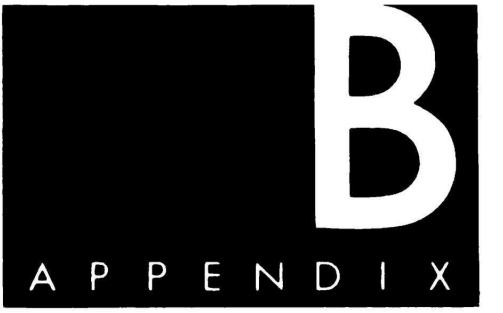
Variable-Label: A series of descriptive text annotations, used to explain line/symbol (Line) or color/hatching (Bar) combinations.



Volume name (or disk specifier): The name given to disks or a hard disk for the purpose of disk file access. The SuperCalc3a disks are /PROGRAM, /GRAPH, and /TOOLS. See File.

Wildcard: Three keyboard characters used in text match criteria to find or extract data from a database. Valid wildcards: * (Br* matches Brea or Brussels, but not brake); ? (b??ch matches bench or beach, but not benches); ~ (~ Ford matches anything except Ford).

Window: See Display window.



Plotter Fonts Samples



Plotter Fonts Samples

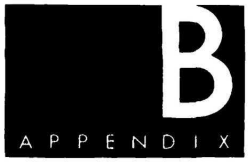
1. Block, single-stroke
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
|+-*/.,<>;:"[]'=`~\()&^%$_#{}@!?
1234567890

2. Block, double-stroke
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
|+-*/.,<>;:"[]'=`~\()&^%$_#{}@!?
1234567890

3. Roman, double-stroke
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
|+-*/.,<>;:"[]'=`~\()&^%$_#{}@!?
1234567890

4. Roman, triple-stroke
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
|+-*/.,<>;:"[]'=`~\()&^%$_#{}@!?
1234567890

SuperCalc3 Plotter Fonts conform to the National Bureau of Standards.



APPENDIX B

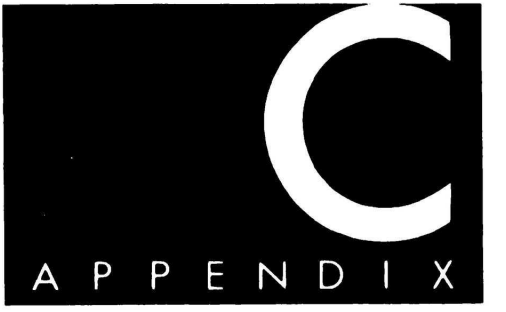
5. *Italic, double-stroke*
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
¦+−*/.,<>;:''[]'=`~\()&^%$_#{}@!?
1234567890

6. ***Italic, triple-stroke***
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
|+−*/.,<>;:''[]'=`~\()&^%$_#{}@!?
1234567890

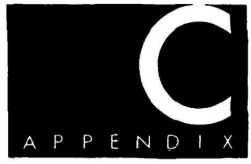
7. *Script, single-stroke*
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOP2RSTUVWXYZ
|+−*/.,<>;:''[]'=`~\()&^%$_#{}@!?
1234567890

8. *Script, double-stroke*
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOP2RSTUVWXYZ
¦+−*/.,<>;:''[]'=`~\()&^%$_#{}@!?
1234567890

SuperCalc3 Plotter Fonts conform to the National Bureau of Standards.



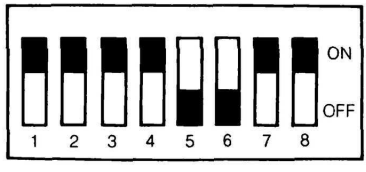
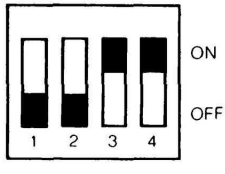
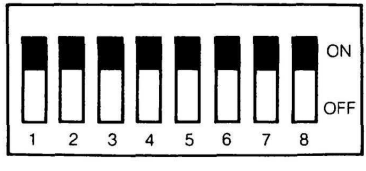
Switches — Printers, Plotters, & Cards

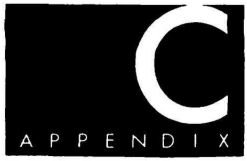


Switches—Printers, Plotters & Cards

Many of the printers, plotters and cards supported by SuperCalc3 have switches that may be set by the user. SuperCalc3 assumes you will use the settings listed here. If you use other settings you will have to make appropriate changes at the /Global,Interface screen. These settings match the SuperCalc3 initial defaults.

Printers

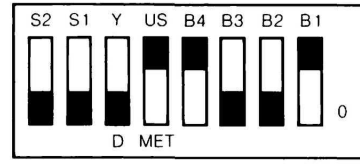
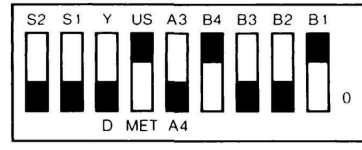
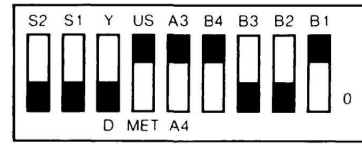
Printer & Model	Port P = Parallel S = Serial	Switch settings * = no settings
Apple Imagewriter	S	Switch 1  Switch 2 
Apple SCRIBE	S	



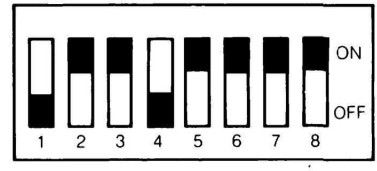
APPENDIX C

Printer & Model	Port P = Parallel S = Serial	Switch settings * = no settings
Epson MX 80 P	P	
Epson MX 100 P	P	
Epson FX 80 P	P	
Epson FX 100 P	P	
Epson RX 80 P	P	
Epson RX 100 P	P	
HP 2225 P	P	

Pen Plotters

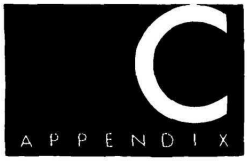
Plotter & Model	# of Pens	Port	Switch settings * = no settings
HP 7470A	2	S	
HP 7475A Small Paper - 8.5 X 11	6	S	
HP 7475A Large Paper - 11 X 17	6	S	

ENTER Sweet-P 100	1	P *	
STROBE 100	1	S	PARITY SWITCH - middle position - NO PARITY ROTARY BAUD RATE SWITCH - position C - 4800 BAUD
STROBE 260	8	S	PARITY SWITCH - middle position - NO PARITY ROTARY BAUD RATE SWITCH - position C - 4800 BAUD
APPLE COLOR PLOTTER	4	S	



Cards

Card	Settings
Apple IIc Serial	None
Super Serial	1) Jumper block must be in printer mode. 2) Other switches ignored (overridden).
Apple Comm Serial	Set the baud rate on the card.
Apple Parallel	None
Sweet-P	None



APPENDIX C

Cards

Card	Settings
GRAPPLER Plus Parallel	See Grappler manual.
Extended 80 Column (Apple //e only)	Jumper for pins J1 must be connected for high resolution graphs. Note that the equivalent for the //c is always connected.
Epson APL Parallel	The Epson APL Parallel card is not fully supported. If you have one, the following information may be helpful. Many printers need 8 data bits for graphics. Some models of the Epson APL card are configured to send only 7 data bits. That is, bit 8 is grounded on the board, thus graphics are not printed. To configure the card for 8 data bits, change the P4 jumper to M4. Note: This requires the use of a solder gun. See your dealer for assistance.



Sideways Printing



Sideways Printing

This User's Guide for the SIDEWAYS (tm) program covers the following topics:

Page Content

D- 1 Overview
D- 2 Installing SIDEWAYS For Your Printer
D- 7 Files You Can Print with SIDEWAYS
D- 8 Starting the SIDEWAYS Program
D- 9 The SIDEWAYS Menu
D- 9 Using the SIDEWAYS Program
D-10 How to Ask for Help
D-11 How to Print Sideways
D-13 How to Change Option Settings
D-16 How to Exit from SIDEWAYS

Overview

What if...your spreadsheet is too wide for your printer?

Now you can print all the columns of your spreadsheet, all at one time, all on one continuous page, right across the perforations of your printer paper. The SIDEWAYS program rotates your spreadsheet by 90 degrees as it prints, so data that stretches beyond the right edge of the standard sheet of paper does not get chopped off.

SIDEWAYS can print a file written to disk with the SuperCalc3 *Output,Display to Disk* command.



APPENDIX D

SIDEWAYS can be used as is, with standard type size, margins, and spacing already set for you. But if you want to change any options at the SIDEWAYS menu, the program provides:

- A choice of six type sizes
- Complete control over margins
- Variable spacing between characters and lines
- A double-strike option for added print density (type weight)
- Support of ProDOS directory pathing

Reminder: The SIDEWAYS program and installation files are shipped on the SuperCalc3 /TOOLS disk.

Installing SIDEWAYS for Your Printer

Before using SIDEWAYS, you need to install the program for the printer, interface card, and port ("slot number") you are using. In this section we include guidelines for making these selections, as well as the number of data bits to specify.

This is a one-time program setup procedure. You will not need to install SIDEWAYS again unless you change printers.

At the Basic prompt (]), insert your working copy of the SuperCalc3 /TOOLS disk in Drive 1.

Enter **-/TOOLS/SIDEWAYS**, then when you see the SIDEWAYS copyright screen. type "i".

The Install program loads into your computer, and you see the Install Main Menu.



The top half of the screen shows the currently installed selections. These selections match options 1 through 4 on the menu in the bottom half of the screen. For example, if you have an Apple IIc and an Imagewriter printer, the top half of the screen should display these settings after you complete your selections:

The currently installed selections are:

= Apple Imagewriter Printer (Option 1 at Main Menu)
= Apple IIc serial port (Option 2 at Main Menu)
= Slot number: 1 (Option 3 at Main Menu)
= Number of data bits: 8 (Option 4 at Main Menu)

The bottom half of the screen shows the Main Menu options that let you change the selections:

Install - Main Menu

1. Select Printer
2. Select Interface Card
3. Select Slot Number
4. Select Number of Data Bits
5. Test Interface
6. Exit

Enter a number between 1 and 6 ... [] (Then press [RETURN])

Enter each option number, press **[RETURN]**, then follow these guidelines:

Option 1 — Select Printer

Select your printer from the list displayed.



APPENDIX D

Most of the listed printers have dot-addressable graphics capability as a standard feature. This feature is required to print with SIDEWAYS. For some of the listed printers, the dot-addressable graphics is an option available from your dealer:

Epson MX-80 — Graftrax option (standard on recent models)
Okidata Microline 82/83 — Okigraph option
IDS/Dataproducts printers — Dot Plot option

Printer notes:

Okidata 84 — If you have an older model, you can get an upgrade kit from Okidata to make the printer a "Step 2" model.

IDS/Dataproducts — On Function Select DIP S4, set switch 7 to ON to "enable expanded functions."

Compatible printers — Many printers with various brand names are compatible to one of the listed printers. Check your printer manual for a list of compatible printers. In many cases the printer is "Epson- compatible," or perhaps compatible to the C. Itoh Prowriter. If you're not sure, try each choice at the "Epson Printer" sub-screen.

Option 2 — Select Interface Card

Select your card from the list displayed.

See the option corresponding to your card on the table below.

The Interface cards currently supported by SIDEWAYS are listed in the column on the left. The column on the right lists the Interface options that match each card.

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Your Interface Card	Card Option To Select
Apple IIc (all IIc computers)	Apple IIc Serial Port
Apple Parallel	Standard Parallel Interface
Apple Super Serial	Apple SuperSerial Card
Orange Interface	Standard Parallel Interface
Grappler	Grappler (older model)
Grappler Plus	Grappler Plus
Pkaso	Pkaso
RC-611C	Standard Parallel Interface
Dumpling	Dumpling
SSM (Transend) APPIC	Standard Parallel Interface
Epson APL	Standard Parallel Interface
ALS Printermate	ALS Printermate
ALS Dispatcher	ALS Dispatcher
Graphicard	Standard Parallel Interface
Microbuffer II	Microbuffer II
Prometheus PRT-1	Standard Parallel Interface
Versacard Parallel	Standard Parallel Interface
Versacard Serial	CCS 7710/Versacard Serial
CCS 7728	CCS 7728
CCS 7710	CCS 7710/Versacard Serial
Tymac PPC-100	Standard Parallel Interface
Tymac Tackler/normal	Standard Parallel Interface
Tymac Tackler/smart	Grappler (older model)
Okidata Plug 'n Play/normal	Standard Parallel Interface
Okidata Plug 'n Play/smart	Grappler (older model)
Spies Lab Super-MX	Grappler (older model)
Wesper IPI/BPO	Standard Parallel Interface
Mountain CPS Parallel	Mountain CPS Parallel
Mountain CPS Serial	Mountain CPS Serial

If you have a parallel interface card not listed above, the option most likely to succeed is Standard Parallel Interface.

Option 3 — Select Slot Number

Enter the slot number containing your Interface Card.

Typically, your Interface Card is located in slot 1 (same as Port 1 on the Apple IIc). If you have an Apple IIc enter 1 or 2, depending on the Port cabled to your printer.

Option 4 — Select Number of Data Bits

Enter 7 or 8 data bits per byte.

In most cases, enter 8. An entry of 8 is preferable for sideways printing.

Mannesmann Tally printers require an entry of 8 data bits.

In a few cases an entry of 7 is correct:

> Enter 7 if your Interface Card is an Epson APL or a Mountain CPS Parallel.
>
> Enter 7 if the DIP switch on your printer is set to disable the 8th bit (optionally, set the switch to enable the 8th bit and enter 8).

Option 5 — Test Interface

After you complete the selections, you can test the interface with option 5, which sends sample text to your printer. The text does not print sideways on the sheet.

Option 6 — Exit

Option 6 lets you exit from the Install program to the SIDEWAYS menu.



Testing Sideways With a Sample Spreadsheet

If you want to print a sample spreadsheet (SIDEWAYS.PRN) included on the /TOOLS disk, make the following entry on the SIDEWAYS menu:

At the Print file field, enter /TOOLS/SIDEWAYS.PRN [**RETURN**].

Note that entering the .PRN suffix is optional when there is no other period in the filename.

Files You Can Print with SIDEWAYS

To print a spreadsheet with SIDEWAYS you must use the SuperCalc3 *Output* command to change the page Width setting to zero (0) at the Setup Printer Menu. Then Output the Display to Disk.

The resulting file is a SIDEWAYS "print file." A .PRN suffix is appended to the filename automatically, unless you enter a different suffix.

Example of a complete SuperCalc3 *Output Display to Disk* command, including a page Width change at the Setup Printer Menu:

/Output,**D**isplay,**ALL**,**S**etup,**W**idth **0** [**RETURN**]

Type **P** to exit the menu and return to the previous prompt:

/Output,**D**isplay,**ALL**,

To complete the entry type **D**isk,**filename** [**RETURN**]

Optionally, you can output a partial spreadsheet, rather than ALL.



You can also change some other printer settings at the Setup Printer Menu, but changes are normally not required to print with SIDEWAYS, and some printer setup codes may interfere with the SIDEWAYS operation on your printer.

Caution:

Typically, you save a SuperCalc3 spreadsheet with the *Save* command. The resulting .CAL file cannot be printed by SIDEWAYS. A sideways on the sheet) by SuperCalc3 with the *Output to Printer* command.

Do not use Apple MouseText characters in a spreadsheet to be printed by SIDEWAYS.

To Sideways-print a .CAL file from any prior version or release of SuperCalc, load the .CAL file into SuperCalc3, then Output the Display to Disk. The resulting .PRN file is the only file format recognized by this version of SIDEWAYS.

Starting the SIDEWAYS Program

At the Basic prompt, with /TOOLS in the Drive 1, enter:

-/TOOLS/SIDEWAYS [RETURN]

Or, from SuperCalc3, after you *Save* your spreadsheet, enter:

/Quit,To,/TOOLS/SIDEWAYS [RETURN]

You see a copyright notice, then the SIDEWAYS menu.



The SIDEWAYS Menu

```
          SIDEWAYS version n.no

Vertical form size:          11.00
Horizontal form size:         8.00

Double strike:                OFF
Character font:            NORMAL        5 x 15 dot matrix

Character spacing:             1         12.00 characters per inch
Line spacing:                  3          6.66 lines per inch

Left margin:                0.00
Top margin:                 0.00
Bottom margin:              0.00                51 lines per page

Starting page:                 1

Print file: |                                                        |

Prefix      /TOOLS/

CTRL-Q to quit                                          ? for HELP
```

Using the SIDEWAYS Program

You might not need to change any of the option settings (the settings above the "Print file" entry line) to do most, or even all of your printing. The options at the SIDEWAYS menu are pre-set for a typical printout on continuous-form or single sheet 8-1/2 by 11 inch paper.

A section titled "How To Change option settings" follows the sections titled "How to Ask for Help" and "How to Print Sideways."



APPENDIX D

How to Ask for Help

Press [**?**] for the SIDEWAYS Help screen.

You see a list of key function definitions and additional information. Note that each option on the SIDEWAYS menu is called a *field*.

up/down arrows to move from field to field
[Delete] to delete the last character typed
[Esc] to cancel entry and return to former contents
[RETURN] to complete an entry
[Control S] to save current options
[Control Q] to exit

To view names of print files:

To view names of all print files under the current Prefix: At the Print file field type = and use the right arrow key to scroll through filenames.

A Prefix is a disk volume name and, optionally, one or more sub-directory names, such as /DATA or /PROFILE/SALES/ILLINOIS.

To view names of all print files in another drive, such as Drive 2, type **=,D2** then scroll with right arrow.

The = key can be used as a wildcard, substituting any sequence of characters in a Prefix or filename. To view all print files under the current Prefix beginning with the letters FEB, enter FEB=, then scroll with right arrow.

Another entry with wildcards might be: /=3/A=G/=

Where /=3 is a volume ending with 3, /A=G is a sub-directory beginning with A and ending with G, /= means any print file at the Prefix specified.



Note that SIDEWAYS displays a "FILE NOT FOUND" message if the file specified is not found, or if no more print files are found when scrolling, or if the file specified is not a valid print file (file type $F4 at the ProDOS Catalog).

To change the current Prefix:

At the Print file field, either —

Enter the new Prefix, such as **/DATA** and press **[RETURN]**, or

Enter a comma, followed by a Drive number, such as **,D2 [RETURN]**. The disk volume name in Drive 2 becomes the current Prefix.

Note that the Prefix specified must be on-line. If not, you see a "VOLUME NOT FOUND" message.

How to Print Sideways

If the current Prefix contains the file you want to print, enter the filename and suffix at the Print file field, such as **SIDEWAYS.PRN** or **JANSALES.PRN**. Then press **[RETURN]** to output the file to your printer.

Optionally, at the Print file field, scroll through the current Prefix (with = **right arrow**), then press **[RETURN]** when the filename you want to print is displayed.

Stopping the Printer:

To stop the printer before printing is completed, press **P**.

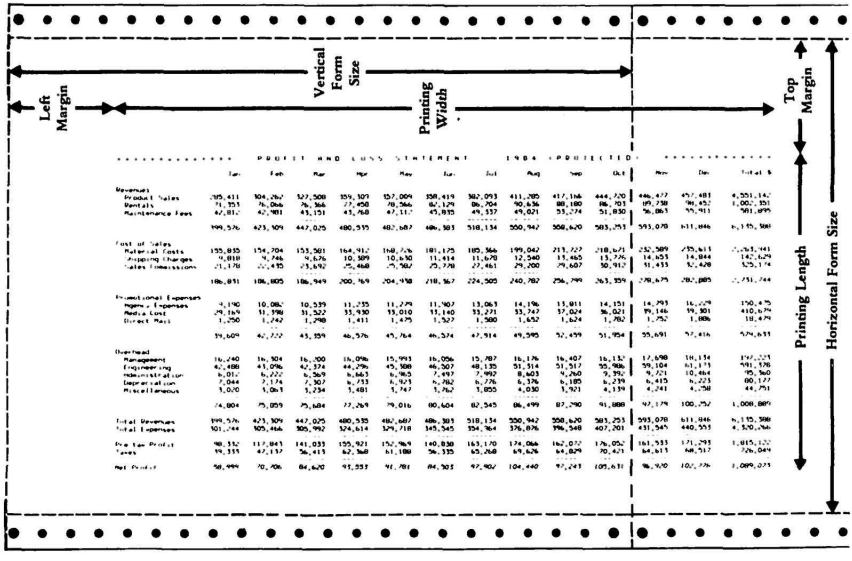
The printer stops at the current line, or when the buffer is empty, and does a form feed. Printing will not resume where the process was aborted.

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Example of an extra-wide spreadsheet printed with SIDEWAYS:

Notice that the borders were turned off with the *Global,Border* command before the spreadsheet was *Output to Disk*.

A SIDEWAYS Printout



Long Spreadsheets:

If the number of spreadsheet rows exceeds the horizontal form size (the distance between tractor feed edges of the form), some lower rows are printed to the right of the top rows of the report. Try changing the *Character Font* setting to a smaller type size for more rows per form.



How to Change Option Settings

The SIDEWAYS menu provides nine appearance options that let you control certain aspects of your printout, and a Starting Page option.

- Three appearance options are toggle fields. You strike any key, such as the [**spacebar**], to display each setting available. The toggle fields are:

 Horizontal form size (inches) — 8.00 or 13.60.
 Double strike — OFF or ON.
 Character font — 6 type sizes, Tiny through Extra Large.

- The other six appearance options are changed by *typing over* the current settings.

 If your entry is invalid, SIDEWAYS beeps or displays an error message. The field reverts to its previous value.

- The Starting Page option lets you skip to any page in your print file to start the printing.

For reference purposes in this manual, we have divided our brief description of each appearance option into these four categories:

- Paper Dimensions
- Type (font) Weight and Size
- Character and Line Spacing
- Margins



APPENDIX D

Paper Dimensions

Vertical form size is the distance between perforations of your printer paper. Whenever SIDEWAYS finishes printing a page, it form feeds to the next multiple of *vertical form size*. It is normally set to 11 inches; you may also set it to some multiple of actual form size, such as 22 or 33 inches.

Horizontal form size refers to your paper width. If you have a wide-carriage printer, you can toggle the setting between 8 inches and 13.6 inches; if you have a narrow-carriage printer, leave it set at 8 inches.

Type (font) Weight and Size

Double strike is a toggle field which may be set ON or OFF. When ON, each line prints twice, for added print density — also called type weight.

Character font is a toggle field which offers a choice of six type sizes: Tiny, Very Small, Small, Normal, Large, and Extra Large. The right of the screen shows the dimensions of the "dot matrix" — the vertical and horizontal print dots that make up each character in the selected font.

```
Example of TINY print font.
Example of VERY SMALL print font.
Example of SMALL print font.
Example of NORMAL print font.
Example of LARGE print font.
Example of EXTRA LARGE print font.
```



Character and Line Spacing

Character spacing is the distance between successive characters, measured in terms of the vertical dot density of the printer. You can crowd characters together, or spread them apart, by making this number smaller or larger — the number of characters per inch displays at the right.

Line spacing is the distance between successive print lines, measured in terms of the horizontal dot density of the printer. You can crowd lines together or spread them apart by manipulating this value — the number of lines per inch displays at the right.

You may set different *character* and *line spacing* for each *character font;* when you change fonts, SIDEWAYS automatically shifts to the standard *character* and *line spacing* associated with the new font.

Margins

Left margin controls the amount of white space between top-of-form (the left edge of the printed report) and the leftmost SIDEWAYS print column.

Top margin controls the amount of white space between the paper edge and the first SIDEWAYS printed line.

Bottom margin controls the amount of white space between the paper edge and the last SIDEWAYS printed line.

Starting Page

Starting page allows you to skip over the initial pages of a print file; it is normally set to 1 (recommended). The "page" size is determined by margin, spacing, font settings, etc. If you change the *Starting Page* setting, other settings may need to be changed to achieve desired results.



APPENDIX D

Changing SIDEWAYS Default Settings

Once you have set up the SIDEWAYS appearance options as you like them, you can save them to disk by pressing **[Control S]**. The settings are saved on a file named SWOPTIONS under the current Prefix.

If the same Prefix (Disk volume or sub-directory) contains SIDEWAYS and SWOPTIONS, then each time you start SIDEWAYS, your new settings appear.

If SWOPTIONS is saved under a Prefix that does not contain SIDEWAYS, you can load your new settings from the SWOPTIONS Prefix by entering **[Control L]** at the SIDEWAYS menu.

How to Exit from SIDEWAYS

Press **[Control Q]** to exit from SIDEWAYS.



Send/Receive File Transfer



Send Receive — File Transfer

Introduction

Send/Receive is a program that allows you to transfer SuperCalc data files (and other files) from an IBM PC or compatible to your Apple. Send/Receive also lets you transfer .CAL files created with SuperCalc3 in the opposite direction — Apple to IBM PC or compatible.

To use this program, you need:

- The /TOOLS disk containing Send/Receive as a file named SR.
- The Apple disk containing ProDos and BASIC.SYSTEM.
- A communications program that uses the "Christensen Protocol", such as PC.MODEM version 1.4, CrossTalk XVI, Minitel, or PC-TALK ver. III (1200 Baud).
- A cable or modem interface used to link the source and destination computers.
- An Enhanced Apple //e requires a Super Serial card to run Send/Receive.

Topics covered in this Appendix:

- Linking computers
- Setting up a Send/Receive Disk
- Using the Send/Receive Utility



APPENDIX E

Linking Computers

You can use any of these methods to provide a physical link between an Apple //c and an IBM PC (or compatible):

- Use the cable designed to connect the Apple //c to an Apple Scribe or Imagewriter printer. You will also need a "gender changer" adapter for the IBM PC end to convert the cable from male to female.

- You can build your own cable, or have your computer dealer build one for you, with the following connections.

	Apple //c		IBM
Pin #	Function	Pin #	Function
1	Data Terminal Ready	6	Data Set Ready
2	Transmitted Data	3	Received Data
3	Ground	7	Ground
4	Received Data	2	Trasmitted Data
5	Data Set Ready	20	Data Terminal Ready

You may need to make the following additional connections:

IBM pin 4 to IBM pin 5
IBM pin 8 to IBM pin 20

The connectors for the IBM usually have tiny numbers to identify the pins, but on the Apple //c, this is not so. Looking at the back of the Apple //c (not the plug) the pins are arranged.





Connect the cable as follows:

- Plug the IBM end into the "gender changer", then plug the gender changer into COM1: (serial port).
- Plug the Apple //c end into port 2 (the phone port).

Setting Up a Send/Receive Disk

Format a blank disk and name it /SRDATA.

Copy these three files to the /SRDATA disk:

PRODOS (from the Apple disk).
BASIC.SYSTEMS (from the Apple disk).
SR (from the /TOOLS disk).

Using Send/Receive

The transfer is done by the "Christensen Protocol" to insure error free reception. This means that the file is sent in 128 byte blocks and each block is checked for errors using the Checksum or CRC method. That is, the actual number of bits that are sent are compared to the number that should be sent. If an error is found, the entire block is sent again, resulting in a very reliable transfer.

There are many such communications programs available, some are in public domain and can be obtained at no charge or a small copying fee. Some examples are:

QMODEM
PC-TALK ver III (1200 Baud)
Minitel



APPENDIX E

The following step-by-step example demonstrates the use of Send/Receive. We will transfer a file at 9600 Baud (bits per second), the maximum speed possible for the IBM PC.

Our purpose is to move an IBM file MYFILE.CAL from the IBM B: drive to the Apple //c disk named /DATA.

	Apple	IBM
1.	Boot the /SRDATA disk.	Boot the IBM using a DOS disk.
2.	Enter **-SR**	Load the communications program such as PC-TALK.
3.	Use the O(ptions) menu to set Send/Receive for checksum operation.	Wait
4.	Put the /DATA disk in any Apple Drive.	Put the disk containing MYFILE.CAL in drive B:
5.	Type **R** to indicate receive	Wait
6.	Enter **/DATA/MYFILE.CAL [RETURN]**	Wait
7.	To correct a mistake enter ESC to return to step 4 or use the backspace or left arrow to edit the entry.	Instruct the IBM program to Send the file (typically something like [Alt-T] then B:MYFILE.CAL = x [RETURN] as with PC-TALK (= x tells PC-TALK to use Christensen protocol).



8.	If the file exists on the /DATA disk, you will be asked if you want to write over it. If you say No, you will be returned to the start. If you say Yes, the old file will be lost.	Wait
9.	Send/Receive will say "Receiving /DATA/MYFILE.CAL" and indicate the number of blocks received at the bottom of the screen.	The IBM program will say something like "Sending".
10.	Send/Receive will say "Transfer Completed Successfully".	IBM will say something similar.
11.	Enter **Q** to quit.	Enter the appropriate Quit command.

To reverse the process (Apple to IBM, you only need to change the R in step 4 Apple side to an S, and the [Alt-T] for transmit in step 6 on the IBM side to an [Alt-R] for receive.



APPENDIX E

Additional information

Each program will wait for the other to indicate that it is ready. If the other program does not respond in a reasonable time, the program will indicate 'TRANSMISSION ERROR'. In this case, restart both programs.

The [ESC] key on the Apple will stop a transfer from either end. If you halt a transfer, the computer will first tell the other end that the transfer has been stopped, then any unfinished files will be deleted. Since this takes some time, there will be a brief delay before control is returned to you.

If the computers don't seem to talk at all, make sure the cable is connected correctly and to the proper ports on both machines. Also make sure that both ends are using the same error checking method, either Checksum or CRC. Use the Options menu to change the error checking on the Apple end if necessary. Also, the computers must both be using the same baud rate. Change the Apple end (Options) if necessary.

The Send/Receive O(ptions) menu contains the following selections:

B Select the Baud rate for the transfer.

D Set the system Date. This date becomes part of the file directory.

P Select the Prefix disk.

T Toggle error checking between *CRC* and *Checksum*.

V Update volumes on-line.



SuperData Interchange

APPENDIX F



SuperData Interchange™

Introduction

What is SuperData Interchange?

SuperData Interchange allows you to convert a data file from another program into a SuperCalc data file or vice versa. Without SuperData Interchange, exchanging information between SuperCalc and other programs can be difficult and time consuming. SuperCalc stores a data file on disk in a special binary format for efficient disk storage and quick loading of files. Only SuperCalc can read these files; other programs cannot use them.

SuperData Interchange converts SuperCalc's binary files to other formats that use ASCII characters and vice versa. ASCII (American Standard Code for Information Interchange) is an internationally recognized character set code. Appendix H contains an ASCII table.

SuperData Interchange can convert ASCII files into SuperCalc binary files and can generate the first 2 types of ASCII files from a SuperCalc file.

1. *Comma Separated Value* — .CSV. A .CSV file contains numeric values or text strings from file items (fields). Each item is separated by a comma. A .CSV file does not contain formulas or display formatting characteristics.

2. *SuperData Interchange format*—.SDI. An .SDI file defines each cell using three fields.



APPENDIX F

3. *VisiCalc* tm—.VC. SuperData Interchange can convert a VisiCalc data file into SuperCalc format, retaining formulas and display format characteristics.

4. *AppleWorks* tm — SDI can convert an AppleWorks file to a SuperCalc .CAL file, retaining formulas and display format characteristics.

Why Use SuperData Interchange?

Converting data created by one program for use by another program saves time and money.

Suppose you have your most recent Profit and Loss Statement in little "what if" modeling with SuperCalc. Or perhaps you want to transfer some data in a SuperCalc spreadsheet to a program that uses .SDI format to further analyze the data and produce various reports.

With SuperData Interchange there's no need to key in the information a second time. You save time and avoid errors by converting the existing file.

SuperData Interchange displays a menu on the screen for selecting the type of conversion you want. The program prompts for the name of the file to be converted (the source file) and the name for the file to be created by the conversion (the destination file). The source file contents are NOT altered.

Here are some examples of the ways SuperData Interchange can convert data to and from different programs.

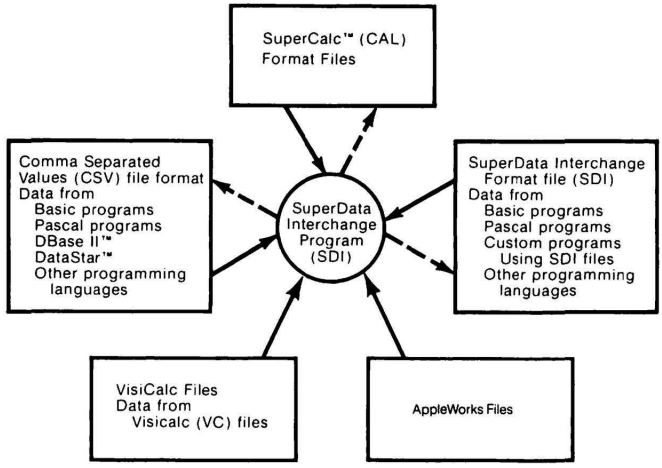


Table 1-1: SuperData Interchange

Using Your SuperData Interchange Program

A Sample File Conversion

A sample file (BUDGET.CAL) is provided on your SuperCalc /TOOLS distribution disk. When loaded into the SuperCalc program, the display looks as follows:

	A	B	C
1	SAMPLE BUDGET		
2			
3	DESCRIPTION	AMOUNT	BALANCE
4			
5	==========	==========	==========
6	STARTING BALANCE		250.00
7	PAYDAY	550.00	800.00
8	RENT	-350.00	450.00
9	UTILITIES	-75.00	375.00
10	FOOD	-200.00	175.00
11	AUTO	-100.00	75.00
12	==========	==========	==========
13			75.00

Screen E-1: Budget.Cal



APPENDIX F

These examples demonstrate SuperData Interchange's quick and easy method of converting files. But don't let it's simplicity fool you—SuperData Interchange is a powerful conversion tool. Before you convert actual data there are several things to consider.

Selecting the Type of Conversion

You first must decide what kind of data file your program uses. Consult the documentation that comes with the program or talk to your dealer.

To use SuperData Interchange, enter

-/TOOLS/SDI [RETURN]

from ProDOS. Alternately, you could use SDI from SuperCalc3 with:

/Quit,To,/TOOLS/SDI [RETURN]

The SuperData Interchange Main Menu displays on your monitor.

```
                    Soncim File Conversion Utility
                              Version: 2.00

These are the File Conversions Available:

  A.  SuperCalc                 to Comma Separated Value
  B.  Comma Separated Value     to SuperCalc
  C.  SuperCalc                 to SuperData Interchange
  D.  SuperData Interchange     to SuperCalc
  E.  Visicalc                  to SuperCalc
  F.  AppleWorks                to SuperCalc

  X.  Exit program


            Enter your choice (A, B, C, D or X)?
```



If your program reads files as *Comma Separated Values* you can use menu selections A and/or B. If your program uses .DIF format, the file might be eligible for selections C and/or D. Use selection E to convert a VisiCalc file to a SuperCalc file. Use selection F to convert an AppleWorks file to a SuperCalc file.

Specifying Filename and Extensions

You may enter a filename extension if desired to help identify the type of data in the file. This manual refers to file types using the extension convention. Thus, a .CAL file is a SuperCalc file and a .CSV file is a comma separated value file.

Note that the default filename extensions contain no significance other than to help you identify the contents of the file. You are free to alter both the source filename and the destination filename.

You can also use the file path name designation. For example: /ACCT/JAN/BUDGET.CAL.

Note:

When you convert a .CAL file to another format the formulas are lost. Converting that file back to a .CAL file produces a .CAL file that contains only values, not formulas. To prevent destroying your original .CAL file rename the file and do not accept the default filename. This will help to prevent accidentally overwriting the file. After typing in the new filename you can still press **[RETURN]** to accept the default file extension.



APPENDIX F

Converting Files

To use SuperData Interchange, select the desired conversion type from the main menu. Specify the source and destination files. SuperData Interchange creates a new file containing the conversion and leaves the source file intact. The following examples demonstrate how to use SuperData Interchange.

SuperCalc file to Comma Separated Value file

(.CAL — > .CSV)

This example uses all SuperData Interchange defaults. Follow along at your terminal and key in only the **Bold** characters. You may type either upper or lower case characters. SuperData Interchange automatically converts to upper case.

1. Select Menu Item **A** to convert from SuperCalc format to Comma Separated Value format (.CAL — > .CSV).

2. Enter the source filename.

 Enter SOURCE filename: **BUDGET.CAL [RETURN]**

3. Enter the Destination filename.

 Enter DESTINATION filename: **BUDGET.CSV [RETURN]**



SuperData Interchange begins the conversion with the screen message:

Converting BUDGET.CAL to BUDGET.CSV

Your disk should be active for a time, then the SuperData Interchange Main Menu redisplays.

Comma Separated Value file to SuperCalc file

(.CSV — > .CAL)

Now that the file BUDGET.CSV exists, consider the conversion process in reverse.

1. Press **B** to select conversion from Comma Separated Value to SuperCalc format (.CSV — > .CAL).

2. Enter the Source filename.

 Enter SOURCE filename: **BUDGET.CSV [RETURN]**

3. Enter the Destination filename.

 Enter DESTINATION filename: **BUDGETV.CAL [RETURN]**

 Note that the V in the filename serves as a reminder that BUDGETV.CAL contains values only.



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When the File Exists—Safety Check

SuperData Interchange includes a safety check to help avoid writing over an existing file. Suppose you had entered **BUDGET.CAL** for the destination file in Step 3. This is your original SuperCalc data file. SuperData Interchange warns you with this message:

Overwrite the file (y/n)?

Any key but "Y" or "N" will be ignored. The "N" key will abandon the conversion process and redisplay the menu.

If you press "Y" the existing file is deleted and the new file created with the name of the old file.

SuperCalc to SDI

Option C (CAL to SDI) retains format information. SDI prompts:

Output all or values (A or V)?

Your response to this prompt determines whether Formula & Format information are both converted (A) or only Values (V). Caution: This conversion is not aware of User-defined formats which may cause undesired results.



VisiCalc files

SuperData Interchange converts VisiCalc data files to SuperCalc data files. All formulas and values are converted with the following exceptions.

1. The @CHOOSE(switch,value1,value2. . .) function in VisiCalc is interpreted in SuperCalc as (INT(switch) = 1)*value1 + (INT(switch) = 2)*value2 + . . . If the converted expression exceeds 116 characters, a warning message displays on your monitor and ERROR is output to the .CAL file. If the switch has a negative value or 0 or is greater than the number of values provided in the CHOOSE function, the resulting NA in VisiCalc is converted to 0 in SuperCalc. No warning message displays on your monitor.

2. Both the @AND and @OR functions in VisiCalc allow any number of arguments while the same functions in SuperCalc take only two arguments. In order to retain the accuracy of these functions, nested AND or OR functions are generated during conversion. If the converted formula exceeds 116 characters in length, ERROR is output to the destination file. A warning message displays on your monitor.

3. For the AND, OR, and NOT function, VisiCalc takes logic expressions, i.e., 1 or 0, as arguments. SuperCalc takes logic expressions plus zero or non-zero situation as arguments. Therefore, an expression such as AND(A1,B1) is evaluated as ERROR in VisiCalc, but when converted to SuperCalc is evaluated as 1 or 0.

4. The maximum number of nested parentheses in expressions which can be evaluated by SuperCalc is 7 while the corresponding number in VisiCalc is 9. SuperData Interchange converts the expression from VisiCalc to SuperCalc as long as the converted expression does not exceed 116 characters. If the expression is not a valid SuperCalc expression, SuperCalc will evaluate it to ERROR.

5. A text string that exceeds 116 characters is truncated during conversion. If the original formula or the formula after conversion exceeds 116 characters, ERROR is output to the destination file. A warning message displays on your monitor.

6. Boolean formulas that evaluate TRUE or FALSE in VisiCalc result in 1 or 0 in SuperCalc.

7. The formula prefix " + " in VisiCalc is removed when converted to SuperCalc. For example the VisiCalc formula +A1+B1 is converted to the SuperCalc formula A1+B1.

8. VisiCalc displays 21 rows per screen while SuperCalc displays 20 rows per screen. If a worksheet was saved with the cursor at the 21st row of a screen in VisiCalc, then converted to a SuperCalc worksheet, the cursor stays in the same cell with the screen scrolling up one row, i.e., the first row scrolls off the top of the screen. Whenever there is a conflict between retaining original screen and original cursor position, the original cursor position prevails.

9. Window split with title lock is handled differently by SuperCalc and VisiCalc. VisiCalc always carries the title lock in the second window. SuperCalc does not carry the title lock in the second window. The conversion, however, retains the lock in both windows as if the user also set that title lock in the second window.

10. Repeated text in VisiCalc repeats across the column width only. When converted to SuperCalc, VisiCalc repeated text expands across the row until column BK or a non-empty cell, whichever comes first.

Note that SDI does not convert Advanced VisiCalc which contain the suffix .VC. If you attempt to defeat this feature by renaming the file to contain a different suffix, the cells are converted as invalid formulas.



AppleWorks to SuperCalc

SDI can convert an AppleWorks file to a SuperCalc .CAL file. Due to some differences in the two programs, the conversion cannot be perfect. Data is transferred correctly, but minor elements preclude a precise automatic translation. In general, you can convert your own spreadsheets, however, some commercially available templates may not be converted easily.

All formulas are convered with the following exceptions:

SuperCalc	AppleWorks	
N/A	NA	
NPV	NPV	(rounding last decimal different)

If a formula cannot be converted, either because it contains one of the above function references or because it results in a SuperCalc formula that is too long, (greater than 115 characters), a warning message is given and the formula is output as text.

File names for the Apple can contain spaces as a valid character. For example, you could have an AppleWorks spreadsheet called "TAX FILES". The space is stored internally as a "dot" by SDI, thus, any message on screen referring to this spreadsheet contains the filename "TAX.FILES".

Repeating text in SuperCalc3 must be formatted TextLeft.

Some display formats that are not part of the /Format command are placed automatically into the SuperCalc3 User-defined format table. The possibility exists that you may have more different display formats than the 8 table entries available, thus some display formats may be lost.

The preceeding 10 items described for VisiCalc file conversion also apply to AppleWorks file conversion.



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Summary of SuperData Interchange Conversions

Use the other SuperData Interchange Main Menu options in a similar manner. A summary of the options follows:

Option A converts a SuperCalc file to a Comma Separated Value file. Only values are converted. Formulas and display format characteristics are not converted.

Option B converts a Comma Separated Value file to a SuperCalc file. Since a .CSV file contains only values, no formulas appear in the .CAL file. When you load the file into SuperCalc, the default display format is in effect.

Option C converts a SuperCalc file to an .SDI file. The CAL to SDI conversion has an additional option after the Destination filename. The option is to convert "All or Values". All will produce a file which contains formulas and formatting information. When this type of file is converted from SDI to CAL, the resultant spreadsheet will be a full functional one.

Option D converts an .SDI file to a SuperCalc file. Formulas, display format and values are converted.

Note:

Options C and D are not strictly opposite operations of each other. Although SuperData Interchange does not convert formulas and display format characteristics using Option C, Option D does recognize and convert both formulas and display format from an .SDI file containing them. How they get into the .SDI file does not matter to SuperData Interchange. For example, you could use another program to produce the data file, or you could use a text editor on an .SDI file to put in the formulas and display characteristics.



Option E converts a Visicalc file to a SuperCalc file. There is no comparable option that converts a SuperCalc data file into a VisiCalc data file.

Option F converts an AppleWorks file to a SuperCalc file. There is no comparable option that converts a SuperCalc data file into an AppleWorks file.

Special Considerations:

1. If there are warning messages during conversion, SuperData Interchange pauses after the conversion is completed and displays *Press Return to Continue*. This pause allows you to read the warning message before the screen scrolls back to the main menu.

2. A date function, e.g., DATE(mm,dd,yy) in a .CAL file converts to an integer value in a .CSV or .SDI file. This value is a modified Julian date, as if JDATE(date value) had been used on the date.

3. Textual Values are output as text.

4. If the number of columns is greater than 63 or the number of rows is greater than 254, the resulting .CAL file will be truncated. Formula cells convert properly but may result in an ERROR due to now invalid cell references.



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Error Messages

Column out of range.

This can happen when converting to .CAL files. The number of columns in the source file is greater than 63.

Row out of range.

This can happen when converting to .CAL files. The number of rows in the source file is greater than 254.

No COL:ROW string in Origin Specifier.

This can happen when converting from .SDI files to .CAL files. Correct the error.

Ill-formed COL:ROW string in Origin Specifier.

Correct the source file.

No ROW string in Origin Specifier.

Correct the source file.

Missing arg. in Type Ind/Numeric Value line.

This can happen when converting from .SDI to .CAL files. A data item does not contain a valid type indicator.

Improper or no DATA header in file.

The .SDI file does not have a valid "DATA" header item in the header.



Multiple Origin Specifiers in a tuple.

The .SDI file has more than one origin data item in one tuple (row).

Invalid Type Ind./Data Definition.

The .SDI file has an invalid type indicator or data definition.

Fmt/Formula/Rpt Count without prior data.

An .SDI file contains a -3, -4, -5 data type indicator without a preceding numeric data or text data.

Bad file name.

This can happen if you enter a filename containing a reserved character as part of the destination file name, i.e., BUDGET.*

Source file not found.

Correct the error.

File is empty.

Self-explanatory.

File is not a .CAL file.

Self-explanatory.

File is not VisiCalc file.

Self-explanatory.



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Warnings Messages

These warnings are issued by the SuperData Interchange Program to inform you when an unusual action has taken place or when data are found that have not been correctly formed. In the latter case, no action is usually taken by the SuperData Interchange program. In either case, the converted file may be inaccurate.

Closing quote found, truncating string.

This can happen when converting from .CSV to .CAL files. It means that .SDI has found a closing quote for a quoted string, however, there is something left out after the quote and before the field delimiter ','. Those left-out characters will be truncated.

String too long, truncation occurs.

This can happen when converting to .CAL file. It means the original file has string(s) longer than 115 characters.

Formula too long, will output ERROR.

This can happen when converting to .CAL file. It means the original file has formula(s) longer than 116 characters.

Column out of range in Header.

This can happen when converting from .SDI file to .CAL file. It means that column or row specifier is out of range in SDI header items. Column range is 1. . .63. The erroneous header item will be ignored.



Row out of range in Header.

This can happen when converting from .SDI file to .CAL file. It means that column or row specifier is out of range in SDI header items. Row range is 1..254. The erroneous header item will be ignored.

Null data cannot have formula.

This can happen when converting from .SDI to .CAL file. If a data item in the .SDI file is a null data item followed by a formula data item, the formula is illegal and will be ignored.

Illegal format letter.

This can happen when converting from an .SDI to a .CAL file. The .SDI file data item has invalid format letter(s) other than those defined by SuperCalc. The letter(s) will be ignored.

Bad integer number.

This can happen when converting to .CAL file. It means the file has an invalid integer, i.e., integers which have characters other than 0..9, one sign character or a blank.

@AND cannot convert successfully.

This can happen when converting from .VC to .CAL files. If the converted AND formula exceeds 116 characters, an ERROR will be output.

@OR cannot convert successfully.

This can happen when converting from .VC to .CAL files. If the converted OR formula exceeds 116 characters an ERROR will be output.

@CHOOSE cannot convert successfully.

This can happen when converting from .VC to .CAL files. If the converted *CHOOSE formula exceeds 116 characters, an ERROR will be output.

P.S.: When warning messages occur during .VC to .CAL conversion, cell reference will always preceed the messages.

Advanced Topics

Special Data Formats

In the early days of microcomputers, program developers wrote programs to solve specific problems. The data produced and processed by these programs were usually unique to the program. The data had to be printed out, then rekeyed to be useful to another program.

Many programs produce the same kinds of data, that is, rows and columns of headings, numbers, blanks, etc. However, the file structure differs depending on the program.



Developers were interested in a storage format that permitted reconstruction of the data into its original appearance, no matter what the source of the information.

To help solve this problem Software Arts, Inc. defined the "Data Interchange Format" (DIF tm). The SuperData Interchange format is an *extended version or superset* of the DIF format file.

Note:

The definition of that solution is found in Software Arts Technical Note: SATN-18 "PROGRAMMERS GUIDE TO DIF."

SuperData Interchange permits transferring data to and from SuperCalc without retyping.

Conversion Considerations

The next section explores data formats in detail.

Three terms are important to SuperCalc data files.

1. Values — The actual numbers or strings of characters displayed from within SuperCalc. In SuperCalc a value may be a numeric constant or the result of calculating a formula.

2. Display format — The instructions SuperCalc executes when formatting values in individual cells, rows, columns or global conditions.

3. Formulas — Expressions assigned to cell locations specifying calculations or comparisons which are resolved by SuperCalc into values. The formulas may reference constants, built-in functions, or the contents of other cells.

Detailed File Formats

This section gives the advanced SuperData Interchange user an understanding of what the files contain and how to create them from "scratch".

Creating an .SDI or .CSV File

An .SDI or .CSV data file may be created in many ways. One way is to use a program that reads and writes the .SDI or .CSV file format such as a BASIC program.

Another way is to use a word processor. Be careful that the file contains alpha-numeric characters only. Yet another method is to generate the information on a mainframe computer and download this information to your system. This data can either be written on the mainframe in the format needed, or manipulated by an editor or another program.



Comma Separated Value format

A Comma Separated Value data file consists of rows of data, each terminated by a carriage return and a line feed character. The data items in each row are separated by commas, with string data enclosed in double quotes.

A .CSV file contains no other control characters.
Numeric values must be in SuperCalc readable form: Integers, Real numbers and Exponential numbers.

Examples of numbers:

123	123.345	-123	-123.345
12E4	123E-12	-12E5	

String values consists of characters enclosed in double quotes (""). A string may contain blanks, commas and special characters like /, *, etc.

Examples of strings:

"This is a string."
"This too!"
"123,234,45 is a string also"

Note: Many programs that use .CSV data files do not require quotes around a string field unless there is a comma as part of the string. When SuperData Interchange creates a .CSV file, it encloses all strings in quotes, whether or not the string contains a comma. If there is a quote in the string, it is represented by two consecutive quotes, i.e. "" Quotes around strings that do not contain commas are not required to convert a .CSV file to a .CAL file properly.



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Summary of .CSV Format

1. A line or row consists of data items (string and/or numeric) separated by commas.

2. Each line is terminated by a carriage return/line feed pair.

3. A [**CTRL Z**] (hex 1A, decimal 26) terminates the file.

4. A string is surrounded by a double quote mark ("string").

5. There are no other control characters in the file.

Examples of .CSV files:

This file contains only numbers.

123.45,456.77,4322.56,837.233,9198.0,3444.94[**RETURN**]
323.45,8989.84,3939.93,39.8,3494.343,343.99[**RETURN**]

This file contains numbers and strings.

123,"John Smith","ground beef",12.45[**RETURN**]
124,"Betty Jones","top sirloin",34.54[**RETURN**]
125,"Jane Johnson","chicken",4.67[**RETURN**]

Note: The [**RETURN**] means the carriage return and line feed characters.



SuperData Interchange format

The SuperData Interchange format (.SDI) is simple in concept, more complex in implementation. The file may contain information about the general appearance of the spreadsheet as well as the data in the spreadsheet.

The SuperData Interchange format (.SDI) is a superset of the DIF structure used with Visi-series software products. .SDI incorporates the major components of a DIF file and then has added other DATA and HEADER items to enable a file to carry more inf rmation. The original DIF specification contained only numeric and string data. The .SDI format may also contain information on the formulas and formatting characters of the SuperCalc spreadsheet.

A DIF file produced by VisiCalc can be used with SuperCalc after conversion with SuperData Interchange.

SuperData Interchange .SDI File Layout

There are two major components of a .SDI data file, the HEADER section and the DATA section.

HEADER Section

The HEADER consists of two required and three optional fields. The required fields are "TABLE" and "DATA". The TABLE field must be the first field in the file and the DATA field must be the last field of the HEADER section.



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Between the TABLE and DATA fields the following optional fields are also allowed: "COL-FORMAT", "ROW-FORMAT" and "GDISP-FORMAT". These optional fields define the display formatting characteristics for Global, Row and Column formats. The Entry format is defined in the data section for each cell. These three fields are not part of the DIF format, only the .SDI format.

Formatting Strings

Consider the format strings used in the HEADER section. This unquoted string may contain one or more of the following format options with no spaces between them.

L	Indicates that numeric values are to be left justified when displayed in a cell, column or row.
R	Indicates that numeric values are to be right justified when displayed in a cell, column or row.
TL	Indicates that text values are to be left justified when displayed in a cell, column or row.
TR	Indicates that text values are to be right justified when displayed in a cell, column or row.
TC	Indicates that text values are to be centered.
$	Indicates that numeric values are to be displayed with the decimal point fixed at 2 places with trailing zeros to fill up the 2 places to the right of the decimal place if needed.



*	Indicates that numeric values are to be displayed as asterisks (*). One asterisk displays for each integer count in the cell; i.e., 1 displays 1-*, 10 displays 10-*'s. If the cell contents equal 0, then the cell is blank.
I	Indicates that numeric value of the cell is displayed as an integer with no decimal point and no places to the right of the decimal place.
G	Indicates that a numeric value displays as "general" format with the "best-fit" possible.
D	Indicates that formatting for the cell, column or row should be removed. At the global level, SuperCalc reverts to the default format.
E	Indicates that numeric values display in an exponential (n 10x) format. For example, 1.23e2 is equivalent to 123.

Format String Examples:

$TL	TR*	D
GTLR	L$	



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Header Items

TABLE — The first three lines of an .SDI data file indicate the beginning of the file and must appear exactly as shown here:

```
TABLE
0,1
" "
```

GDISP-FORMAT — Specifies the GLOBAL display format settings of the SuperCalc spreadsheet. Only one GDISP-FORMAT definition is allowed for a data file.

FORMAT	*SAMPLE ENTRY*	
GDISP-FORMAT	GDISP-FORMAT	
width,0	9,0	(global column width of 9,
format string	$TL	textleft, $ format)

COL-FORMAT — Specifies the formatting of a particular column. The Column number must be in the range 1-63 columns. As many COL-FORMAT fields as necessary may be included in the header.

FORMAT	*SAMPLE ENTRY*	
COL-FORMAT	COL-FORMAT	
col#,width	3,12	(column C is 12 characters
format string	I	wide and integer format)



ROW-FORMAT — Specifies the formatting of a particular row. This is the same as COL-FORMAT but for rows. The Row number must be in the range 1-254 rows. As many ROW-FORMAT fields as necessary may be included in the header.

FORMAT	*SAMPLE ENTRY*	
ROW-FORMAT	ROW-FORMAT	
row #,0	14,0	(row 14)
format string	TL$	(textleft,$ formatting)

DATA — This item must be the last field in the header. It signifies the end of the header section and the beginning of the data section. The DATA field looks like this:

FORMAT	*SAMPLE ENTRY*
DATA	DATA
0,0	0,0
" "	" "

Below are some valid .SDI headers.

Minimal Header:

This header contains only the TABLE section and the DATA section:

```
TABLE
0,1
" "
DATA
0,0
" "
```

Optional Field Header:

This header contains the required TABLE and DATA sections as well as two COL-FORMAT and one GDISP-FORMAT definition.

```
TABLE
0,1
" "                    Begin Header Section
COL-FORMAT
1,40                   Column width of A is 40
" "                    No special display formating
COL-FORMAT
2,15                   Column width of B is 15
$                      Money format
GDISP-FORMAT
9,0                    Global column width is 9
GTL                    General format with Text Left
DATA
0,0
" "                    Begin Data Section
```

DATA Section

The format of data items differs from that of header items. SuperData Interchange organizes data by rows. Within the rows, values are arranged according to the order of the columns.

Each data entry consists of three fields on two lines. For example:

```
Line 1      field-1, field-2
Line 2      field-3
```



The first line contains two numeric values:

field-1	a type indicator
field-2	a numeric value

The second line contains a string variable.

field-3	string value

This could also be shown like this:

type indicator, numeric value
string value

Types of Data Fields

The type indicator must be an integer from 0 to 1 or -1 to -5. Each indicator is identified in the following table and described in detail below.

0	Numeric Data
1	Text String
-1	Data Definition
-2	Origin Specifier
-3	Entry level display formatting
-4	Formula
-5	Repeat Count

Numeric Data

A zero (0) in field #1 means that the cell contains numeric data. Numeric data is derived from the value that a SuperCalc Formula cell contained. The numeric value is stored in field #2. Field #3 contains the value indicator.

Example: 0,123.45
V

The value indicator can be one of four values. When the value indicator is "V", the number is *valid*, and appears in field #2 as a decimal number. When the value indicator is anything else, the numeric data field is zero. Possible types of data and the contents of the numeric field is presented in the following table:

V	Indicates that the numeric data field contains a *valid* decimal number.
NA	The value for the cell is not available. The numeric data field is zero.
NULL	The value of the cell is NULL or unoccupied. The numeric data field is zero.
ERROR	The value is in Error, perhaps due to an invalid calculation such as dividing by zero.

The numeric data field can contain decimal numbers with signs (+ or —). One or more blanks may precede or follow the number value. If the data value contains an exponent of a power of ten, the value is followed by the letter "e" and the signed or unsigned exponent.

The numeric field is the only place that the .SDI file format allows a non-integer value.



Text string

A one (1) in field #1 indicates that the data item is either a *Text* string or a *Repeating Text* string. The contents of field #2 indicated the type of text. The text string appears in field #3.

0	When field #2 is 0, the contents of field #3 is *Text*. The *Text* may be optionally enclosed in double quotes.
1	When field #2 is 1, the contents of field #3 is *repeating text*.

If the text contains blanks only (not blanks between words), then the string must be enclosed in quotation marks. A text value that is empty contains only quotation marks: i.e. ""

Example of a text cell:

```
1,0
Check Register
```

Example of a repeating text cell:

```
1,1
=
```



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Data Definition

A -1 in field #1 indicates that the data item contains data that defines the data file structure. There are two types of data definitions and they appear in field #3. Field #2 is not used and always contains zero. The two types of data definitions are:

BOT — Marks the beginning of a SuperCalc Row. Note that this is functionally equivalent to a carriage return in Comma Separated Values format in that it separates rows (or records).

Example:
```
-1,0
BOT
```

EOD — Marks the end of data. No further data is interpreted past the EOD by SuperData Interchange.

Example:
```
-1,0
EOD
```

Origin Specifier

A -2 in field #1 indicates an origin specifier. Field #2 is always zero. Field #3 contains the address of a cell.

The origin specifier indicates the cell where the next data item starts. This action is equivalent to a *skip to* command to avoid a long series of NULL entries. SuperData Interchange does not create this type of entry when converting from .CAL to .SDI formats, but does interpret it correctly when converting from .SDI to .CAL format.



The cell address in field #3 contains two numbers separated by a colon. The first number is the column location (1-63). Although the columns are specified by an alphabetic notation in SuperCalc, the letters must be converted to their numeric equivalents here. The second number is the row number as used in SuperCalc (1-254).

The following examples compare SuperData Interchange notation with SuperCalc notation.

SuperCalc	SuperData Interchange
C20	3:20
AB74	28:74
BK254	63:254

Entry level display formatting.

A -3 in field #1 indicates Entry level display formatting. Field #3 contains the formatting specification for the previous cell. Field #2 is always zero (0).

Note: Global, Column and Row formats are specified in the HEADER section.

The display formatting codes are the same as for the Global Display item in the header section: i.e. I, $, TL, etc. If there is no previous data item, an error occurs.



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Formula

A -4 in field #1 specifies a formula. The formula is in field #3 and must be a valid SuperCalc formula. Field #2 is always zero. If there is no previous data item for that cell, an error occurs.

SuperData Interchange does not convert formulas from .CAL to .SDI format. However, you can create or edit formulas in an .SDI file with a text editor. SuperData Interchange will interpret them properly in a .SDI to .CAL conversion.

Example:

```
-4,0
A1+B1=4
```

Repeat Count

The repeat count is specified by -5 in field #1. The *previous* data item is to be repeated into the next sequential cells for the number of times specified by the number in field #2. Field #3 must contain R only. If there is no previous data item for that cell, an error occurs.

This is useful especially for padding a section of a spreadsheet with either NULL data or zeros. An example of filling a line of the spreadsheet with 10 zeros is:

```
-1,0
BOT
0,0
V
-5,9
R
```



Example of a simple but complete .SDI File

```
TABLE
0,1
" "
DATA
0,0
" "
-1,0
BOT
0,123.45
V
0,25.62
V
0,355.42
V
-1,0
EOD
```

This will create a file of 3 data items located on a single row.

The following page shows the file BUDGET.SDI. Notice that the values are converted and that the formulas and display format characteristics are not included.

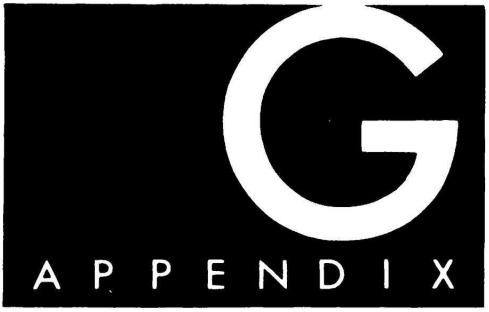


APPENDIX F

This example is Budget: (BUDGET.SDI)

```
TABLE
0,1
" "
DATA
0,0
" "
-1,0
BOT
1,0
SAMPLE BUDGET
0,0-1,0
NULL
0,0
NULL
-1,0
BOT
0,0
NULL
0,0
NULL
-1,0
BOT
1,0
DESCRIPTION
1,0
AMOUNT
1,0
BALANCE
1,0
BOT
1,1
=
0,0
NULL
0,0
NULL
-1,0
BOT
1,0
STARTING
0,0
NULL
0,250
V
-1,0
BOT
1,0
PAYDAY
0,550
0,800.0
V
-1,0
BOT
1,0
RENT
0,-350
V
0,450.0
V

BOT
1,0
UTILITIES
0,-75
V
0,375.0
V
-1,0
NULL
V
0,0
BOT
1,0
FOOD
0,-200
V
0,175.0
V
-1,0
BOT
1,0
AUTO
0,-100
V
0,75.0
V
-1,0
BOT
1,1
=
0,0
NULL
0,0
BALANCE NULL
-1,0
BOT
1,0
FINAL BALANCE
0,0
NULL
0,75.0
V
-1,0
EOD
```



Error & Advisory Messages



Error & Advisory Messages

The following is an alphabetical list of messages that might appear near the bottom right corner of your screen display during your work. Some messages indicate an error condition, some are merely informative. After reading the message, press any key (or the key indicated) to proceed with your work.

AnswerScreen section "*" is missing!

Indicates a problem with the file containing the AnswerScreen (help screen). Check to make sure your /PROGRAM disk is in your disk drive. If this error persists, try copying the file SC3.BIN from your original copy of the /PROGRAM disk to your working copy of the /PROGRAM disk.

Bad character in name

An invalid character was entered for a file name. Filename characters must use only the characters: A-Z, a-z, 0-9, or ".".

Can't read/write disk

There are several possible reasons for this error:

1. The disk drive door might be open; if so, close it.
2. The disk may have been physically damaged; for example, it may have been folded, or there might have been a power failure while writing to the disk.
3. The disk may be write-protected. If you see a write-protect tab covering the notch on the edge of the diskette, remove it and try again. If there is no notch on the diskette, and no tab, the diskette is permanently write protected. Use another disk.
4. You may be having problems with your disk drive. Try the disk in another drive if you have one.



APPENDIX G

Cannot create specified directory

Invalid Directory name. Re-enter name correctly and try again.

Cannot delete file

You tried to delete one of the program files (for example, SC3.BIN or SC.SYSTEM). Don't delete these files.

CLEAR current split

You MUST clear current window before creating another one.

Column BK contains data

You cannot insert a column because the last column of the spreadsheet contains data. Either delete column BK or move the data in the column to another location.

Column ERROR

Indicates that a single Column entry is required.

Column Range ERROR

The Column range is not specified properly. Correct the error and re-enter the range.

Command aborted due to disk error

Indicates a problem with the disk or disk drive: Probably no disk or wrong disk in drive. Usually remedied when correct disk is inserted.



Copy won't fit.

There is not enough room on the spreadsheet for the *Copy.*

Criterion range undefined

Must specify *Criterion* range before using *Find, Extract* or *Select.*

Directory Damaged

One of the directories in the pathname has been corrupted on your disk. Copy your files to another disk and reformat the current one.

Directory Full

There is no room in the volume directory for another file name (the maximum allowed is 51). Delete a file and retry the */Save* or */Output.*

Directory not found

The disk containing the current data directory could not be found. The disk can be in any disk drive.

Directory not found: Make new directory? Y(es) or N(o)?

The Directory is not on the current data drive. Enter "Y" to create a new directory, or "N" to return to the directory-entry line for editing or cancelling the entry.

Disk FULL, command aborted.

There is not enough room on the disk to write the file. Replace the disk with one that has room.



APPENDIX G

Disk write protected

The data disk has a write protect tab in place. Remove the tab and try again.

Error encountered! Press any key

An error occurred while loading SuperCalc3 from the disk. Check that the disk drive door is closed, then press any key.

Error while reading program from disk. Check the disk and the drive and press any key to continue:

An error has been detected while loading some part of the SuperCalc program. Be sure that the program disk is in a working disk drive and press any key to continue. SuperCalc3 will not resume its functions until it has successfully reread the program sections from the disk. Press **[Ctrl Reset]** to recover with data, or, you can press **[Ctrl Open Apple Reset]** to reboot the computer (note however, that this will lose any data in your current spreadsheet that hasn't already been saved).

Filename ERROR

The file name is not in proper format. A filename must contain no more than fifteen total characters: Letters, numerals, or periods. The first character must be a letter. Example: REPORT3.CAL (the .CAL suffix is appended to filenames you *Save* with SuperCalc3 unless a different suffix is specified by entering a period).

File not a directory

The path named is not a correct directory file. Check the spelling of the name.



File not loadable

The file is not in SuperCalc format (.CAL file format), or data is located in cells beyond the spreadsheet boundary.

File NOT on disk

The file requested is not in the disk volume or directory specified, or on the current data directory path if the default was used.

File structure damaged

Information on the disk has been corrupted so that the specified file cannot be read. Copy as much information as possible to another disk and then try again.

First defined variable must be HI, second LO

For Hi-Lo graphs, first data variable values define the Hi data points, and second variable defines the LO data points. Redefine the data variables.

SGF.OVL needed for fonts other than 1

The SGF.OVL file was not found. This file must be accessed for all fonts except Font 1. Put the file on your /GRAPH disk, then retry plotting the graph.

Formula ERROR

SuperCalc3 checks formulas to see if they are complete and legitimate mathematical formulas before entering them into a cell (if *Global," is OFF).* Locate and correct your error, then *re-enter the formula.*



APPENDIX G

"FROM" can't be block.

The source cannot be a block range.

Graph Range ERROR

An invalid graph range was entered. Re-enter range correctly (for example, *1:3).

Graphs not present on file

Use the *Graphs* or *See* options at the *Directory Options* menu to review active graph numbers.

Illegal access to file

Either the .CAL or .PRN file you are trying to write to is locked or the .BAK file is locked, and the backup option was selected. Unlock the appropriate file (see the ProDos manual) or try another file name.

Input range undefined

Must specify *Input* range before using *Find, Extract*,or *Select*.

Insert color n in stall n and press any key

Appears during plotting when you have requested a pen color that is not currently in its plotter stall. Insert the desired pen color in the specified stall (slot) and strike any key to continue plotting. On a two-pen plotter, stall 2 is on the right side.

I/O ERROR! Press any key

You probably removed the /PROGRAM disk while booting. Replace disk and press any key.



Insert pens 0-n and press any key

Appears as you begin plotting to remind you to install the color pens. Insert the desired pen colors and strike any key to start the plotting. (Pen 0 goes in slot 1, pen 1 in slot 2, etc.)

Interface ERROR

Settings at *Global,Interface* menu might not match card, port number or serial options in use. Correct the condition and re-try.

Labels too large to graph

Label length exceeds space available. Shorten or abbreviate label.

Manual scaling: Min greater than Max

Maximum must be greater than Minimum.

Memory FULL

The computer memory is full. You cannot add anything more to the spreadsheet unless you take one of these actions (first, you may want to *Save* your spreadsheet as is): (1) Delete un-needed data from the spreadsheet, or modify the spreadsheet with data in fewer rows or columns; (2) Change the resolution at the Global,Graphics, Options menu to Single, then do Global,Keep and restart the program to recover space.

Negative numbers treated as zero

Negative numbers are plotted as though their value is zero in Stacked-Bar or Area graphs only. Negative numbers are ignored in Pie graphs.



APPENDIX G

No active graphs

No graphs are defined for the current spreadsheet. A *Data* range must be entered with the *View* command for a minimal graph definition.

No graph size

Redefine plotter layout selections at*Global,Graphics,Layout* menu. The graph size or offset you entered in *Manual* mode does not fit page size, or cannot be plotted.

No matching record found

Indicates that no data in the current input block matches the criteria you have specified.

No more matching records

Indicates that the *Find* or *Select* operation has ended.

Non-positive numbers ignored

In pie graphs, negative numbers are not plotted.

No points to plot

Data range for graph must be defined.

No room (at edge) to display window

Error is the result of attempting a *Window,Vertical* command at the left-most or right-most column of display or a *Window,Horizontal* command at the first or last row of the display.



NOT a System program

To */Quit*, To a program, it must be a type SYS file.

No variable defined

A variable range for the current graph number has not been defined. One or more *Data* variables must be defined to produce a graph.

Output area full

There are more records that meet the current criteria than will fit into the block specified by the output range. Enlarge the output block or change the criteria.

Output and Criterion range overlap

The ranges you have specified for *Output* and *Criterion* use some of the same cells. Make a correction to one or the other and try again.

Output and Input range overlap

The ranges you have specified for *Output* and *Input* use some of the same cell. Make a correction to one or the other and try again.

Output range undefined

Must specify *Output* range before using *Extract* or *Select*.

Path name too long

The maximum length of a path name is 64 characters, including the leading slash ("/"). Set a different prefix using the Change option at the directory menu or use fewer characters in the filename.



APPENDIX G

Plotter not ready. Correct and press any key.

Make sure your plotter is turned on and ready to plot, then retry plotting your graph.

Plotting.

Program is readying the specified graph or is in the process of plotting the graph.

Printer out of paper or not ready. Correct and press any key.

Make sure your graphics printer is turned on and ready to print, then retry plotting your graph.

Printer not ready or out of paper.
Ready printer and press space to continue
or press Ctrl-Z to quit printing.

SuperCalc3 checked your printer for ready status. If the printer does not return the ready status, this message occurs. Make sure your printer is on and ready to print, then retry.

Protected Entry at _____

The cell at the address shown is protected. *Unprotect* the cell or use the *Global,Protect* toggle to turn off the shield of protection.

Put in /xxxxx, press any key

The volume where a program or data file resides is no longer in any active disk drive. Either insert the disk with that name in any disk drive and press any key, or press **[Ctrl Z]** to cancel the operation.



Range cannot be a single row

The range specified in a data management command must include a first row for field names (whether they are used or not) and at least one other row.

Range ERROR

The cell range is not specified properly. Correct the error and re-enter the range.

Read error

Some error occurred while loading a file. See "Error while reading program from disk."

Reset Recovery

You pressed **[Ctrl Reset]** during an operation. That operation was aborted, and the spreadsheet is intact.

Row ERROR

Indicates that a single Row entry is required.

Row Range ERROR

The Row range is not specified properly. Correct the error and re-enter the range.

Row 254 contains data

You cannot insert a row because the last row of the spreadsheet contains data. Delete a row first or move the data in the last row to another location, then retry the insert.



APPENDIX G

SC3.BIN not found

The SC3.BIN file was either deleted from the /PROGRAM disk or your hard disk by mistake, or it is not on-line. SC3.BIN must be on the /PROGRAM disk or hard disk with the other SuperCalc3 program files.

Some numbers offscale due to manual scaling

Redefine scale to include all values in *Data* range, or use automatic scaling rather than manual.

Subdirectory NOT on disk

One of the subdirectory names in the specified path is not on the disk. Check the spelling of all parts of the path name, and be sure the proper disk is in an active disk drive.

SuperCalc needs a 65C02
SuperCalc needs an Apple //e or //c
SuperCalc needs 128K of memory

SuperCalc3 will only run on an Apple IIc or on a IIe that is using a 65C02 processor chip. The computer must have at least 128Kof memory.

Target is within move range

You have specified a move that is inside the source range.

TEXT

Indicates that your entry is not a formula type of entry.



The program must be installed so that the length of the program's path is less than 64 characters

Please move the program to another directory or rename part of the path and rerun the program.

This graph type needs two variables

One variable is sufficient for pie, bar, or line graphs; other graphs require two or more variables.

Title cleared

The program must clear the title lock in order to execute your current request.

"TO" must be cell

The destination must be a cell. Correct the entry.

"TO" must be partial column

The destination must be a partial column.

"TO" must be partial row

The destination must be a partial row.

Too many characters in name

Each subdirectory name within a path can be at most 15 characters long. One of the names in this path is too long. Edit the path name and try again.



APPENDIX G

Total path name too long

The length of the path specified at the R(evise) option, plus the length of the graphics overlay filenames, is greater than 64 characters. Choose another directory for the graphics files, or rename one of the elements in the path with fewer characters.

Unreadable file

A serious problem exists on the disk. The file is unreadable. Try a backup copy of the file. The disk may need to be reformatted in order to use it again, but first copy your files — formating erases the entire disk.

User abort

Indicates that execution of a program activity has been aborted, such as when an .XQT file has been interrupted with **[Ctrl C]**.

Using filename as entered

SuperCalc3 did not add a .CAL or .PRN suffix to your file name because a "." was found in the file name specified, or filename (without a period) is 12 or more characters long. This is only a warning, since SuperCalc3 normally adds either a .CAL or .PRN suffix to a filename with less than 12 characters. You can add any suffix you wish to the file name as long as the total length of the file name is 15 characters or less. However, only files with a .CAL extension will be displayed when using the "See" option at the Directory Options menu.

Volume NOT on-line

The volume named in the current path is not on-line. Check that the disk is an active disk drive and that the drive door is shut. Also check the spelling of the volume name.



ASCII Table & Mouse Text Characters

APPENDIX H



ASCII Table

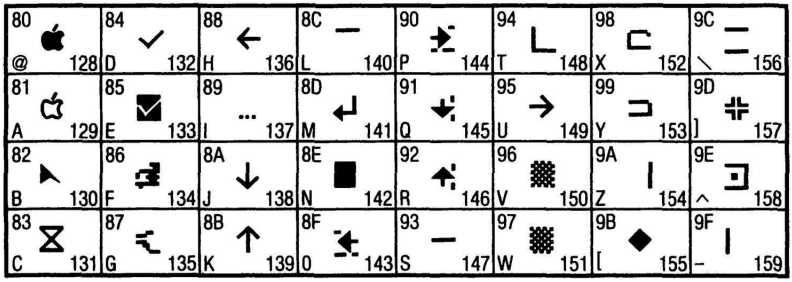
00 NUL CTRL@ 0	10 DLE CTRL P 16	20 SP 32	30 0 48	40 @ 64	50 P 80	60 ` 96	70 p 112
01 SOH CTRL A 1	11 DC1 CTRL Q 17	21 ! 33	31 1 49	41 A 65	51 Q 81	61 a 97	71 q 113
02 STX CTRL B 2	12 DC2 CTRL R 18	22 " 34	32 2 50	42 B 66	52 R 82	62 b 98	72 r 114
03 ETX CTRL C 3	13 DC3 CTRL S 19	23 # 35	33 3 51	43 C 67	53 S 83	63 c 99	73 s 115
04 EOT CTRL D 4	14 DC4 CTRL T 20	24 $ 36	34 4 52	44 D 68	54 T 84	64 d 100	74 t 116
05 ENQ CTRL E 5	15 NAK CTRL U 21	25 % 37	35 5 53	45 E 69	55 U 85	65 e 101	75 u 117
06 ACK CTRL F 6	16 SYN CTRL V 22	26 & 38	36 6 54	46 F 70	56 V 86	66 f 102	76 v 118
07 BEL CTRL G 7	17 ETB CTRL W 23	27 ' 39	37 7 55	47 G 71	57 W 87	67 g 103	77 w 119
08 BS CTRL H 8	18 CAN CTRL X 24	28 (40	38 8 56	48 H 72	58 X 88	68 h 104	78 x 120
09 HT CTRL I 9	19 EM CTRL Y 25	29) 41	39 9 57	49 I 73	59 Y 89	69 i 105	79 y 121
0A LF CTRL J 10	1A SUB CTRL Z 26	2A * 42	3A : 58	4A J 74	5A Z 90	6A j 106	7A z 122
0B VT CTRL K 11	1B ESC CTRL[27	2B + 43	3B ; 59	4B K 75	5B [91	6B k 107	7B { 123
0C FF CTRL L 12	1C FS CTRL \ 28	2C , 44	3C < 60	4C L 76	5C \ 92	6C l 108	7C ¦ 124
0D CR CTRL M 13	1D GS CTRL] 29	2D - 45	3D = 61	4D M 77	5D] 93	6D m 109	7D } 125
0E SO CTRL N 14	1E RS CTRL ^ 30	2E . 46	3E > 62	4E N 78	5E ^ 94	6E n 110	7E ~ 126
0F SI CTRL O 15	1F US CTRL_ 31	2F / 47	3F ? 63	4F O 79	5F _ 95	6F o 111	7F DEL (RUBOUT) 127

Hex 0D CR ASCII Name
Key CTRL M 13 Decimal

Hex 3A
: Character
58 Decimal

APPENDIX H

MouseText Graphic Characters



Hex 84
Depress Apple keys & entry key — D 132 — MouseText Character Decimal

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